

“The Road to Site Closeout”

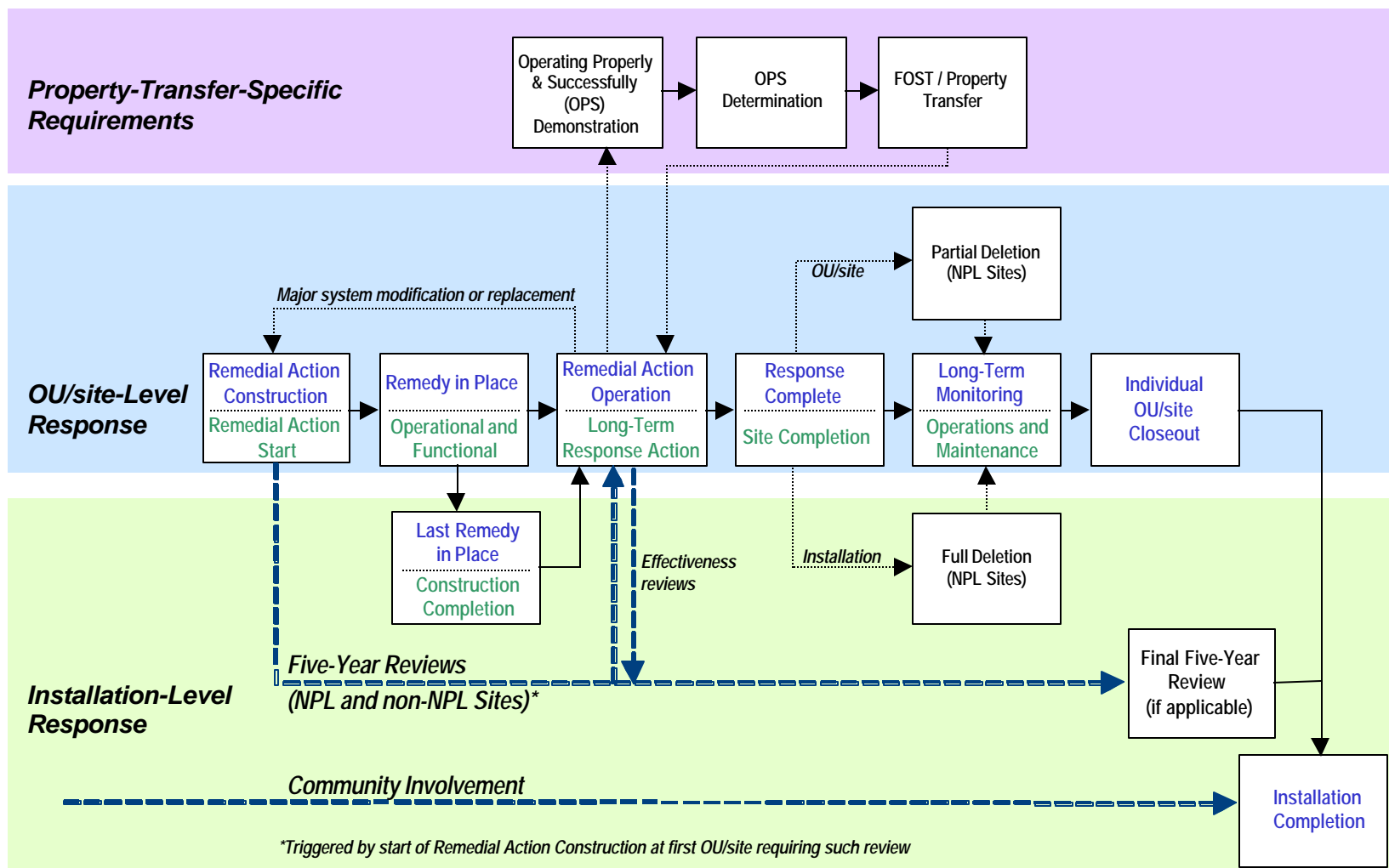
Mario E. Ierardi
AFBCA/EV
(703) 696-5518
mierardi@afbda1.hq.af.mil

Mary Sanderson
EPA Region 1
(617) 573-5711
sanderson.mary@epamail.epa.gov



BRAC Cleanup Team Workshops - Site Closeout

Site Closeout Process

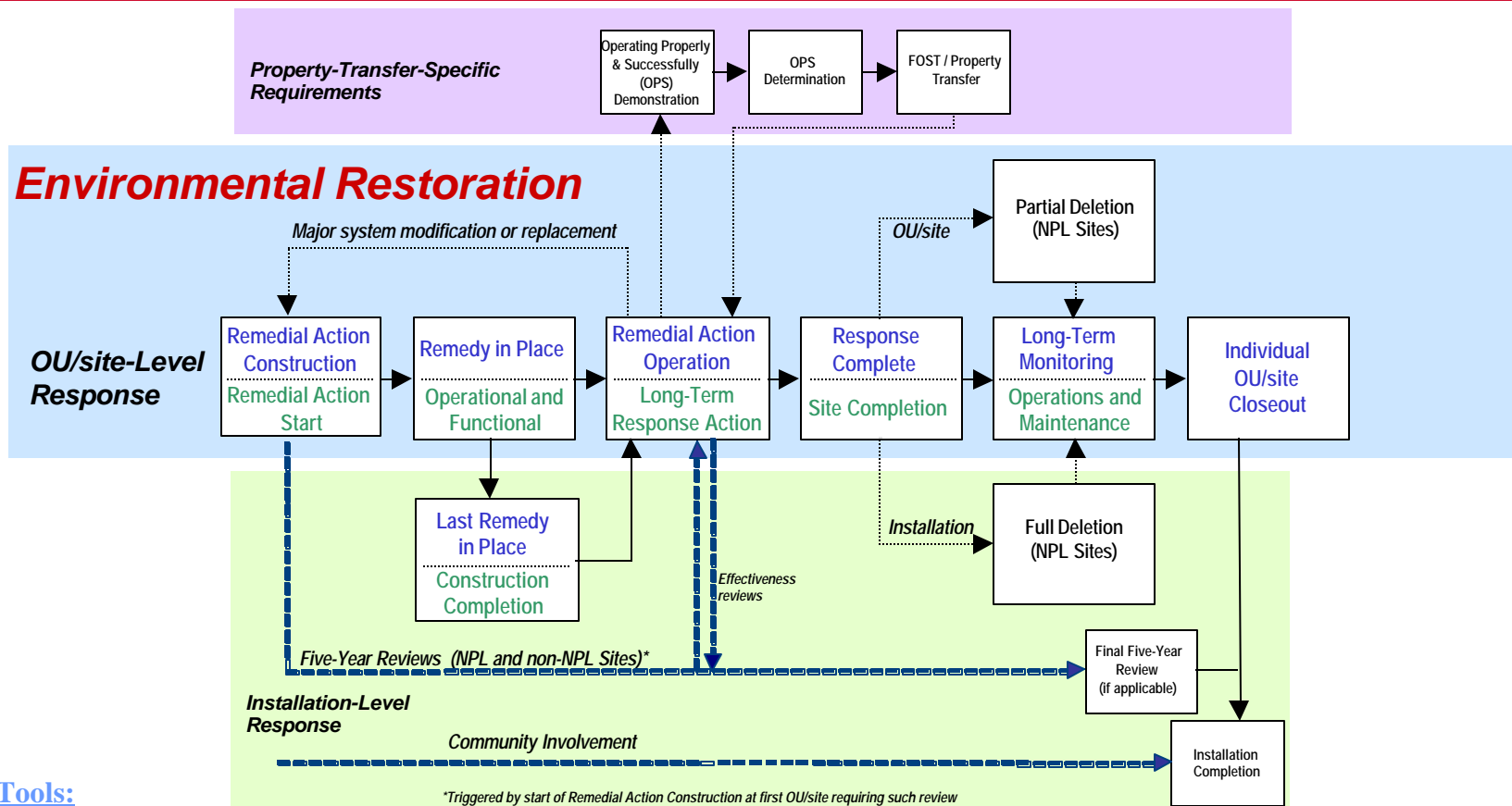


Site Closeout Considerations

- **CERCLA and RCRA Corrective Action sites**
- **NPL and Non-NPL facilities**
- **BRAC and Non-BRAC installations**
- **Federal and State regulatory requirements**
- **Community involvement**



Site Closeout: Environmental Restoration



Tools:

- EPA Closeout Procedures for NPL Sites, Aug 95
- Air Force Long-Term Monitoring Optimization Guide, Oct 97
- Air Combat Command Site Closure Guidance Manual, Dec 97
- EPA Procedures for Partial Deletions at NPL Sites, Apr 96



BRAC Cleanup Team Workshops - Site Closeout

Environmental Restoration Activities

- **Construction of cleanup systems**
- **Operation and maintenance of cleanup systems**
- **Cleanup system modifications/upgrades/security**
- **Institutional control implementation/monitoring**
- **Long-term monitoring performance/optimization**
- **Records management**
- **Preparation of reports and other documentation**
- **Deletion from National Priorities List**
- **Cleanup system/monitoring well decommissioning**



Factors Affecting Site Closeout

- **Time required for closeout components will vary based on site conditions and selected remedy**
 - Remedial action operation (e.g., dig and haul vs. pump and treat)
 - Long-term monitoring/operation and maintenance (O&M)

- **Remedy modification or replacement may be required to achieve cleanup standards**
 - Transition from an active (e.g., pump and treat) to a passive system (e.g., monitored natural attenuation)
 - Failure to achieve cleanup standards



Remedy-Specific Characteristics

■ Level of Cleanup

- Cleanup to unrestricted use or residential standards
- Waste left in place above residential standards

■ Relative length of time needed to operate constructed remedy

- Short time period or not required after construction
- Long time period - part of constructed remedy

■ Time required for O&M

- Physical O&M not required after cleanup standards are achieved or for a relatively short period of time
- Physical O&M required for long period of time or in perpetuity



George AFB Packed Tower Air Strippers



BRAC Cleanup Team Workshops - Site Closeout

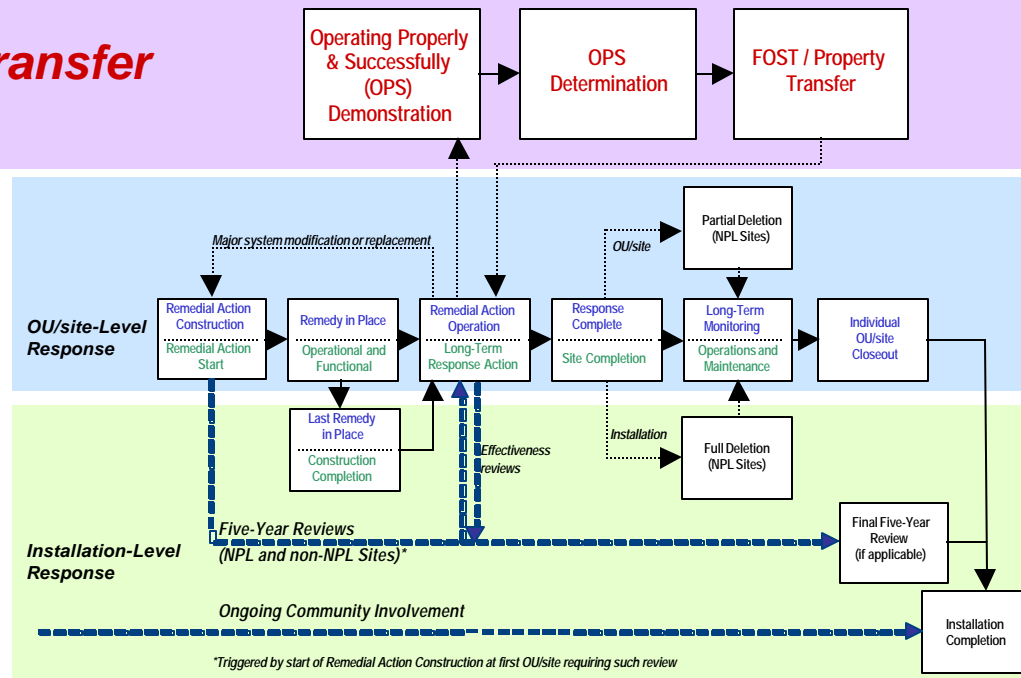
Castle AFB GAC Treatment Plant



BRAC Cleanup Team Workshops - Site Closeout

Site Closeout: Property Transfer

Property Transfer



Tools :

- EPA Operating Properly and Successfully Guidance, Aug 96
- Air Force Operating Properly and Successfully Guidance, Dec 97
- DoD Fast Track to FOST Guide, Fall 96
- DoD Guide to Establishing Institutional Controls, Mar 98

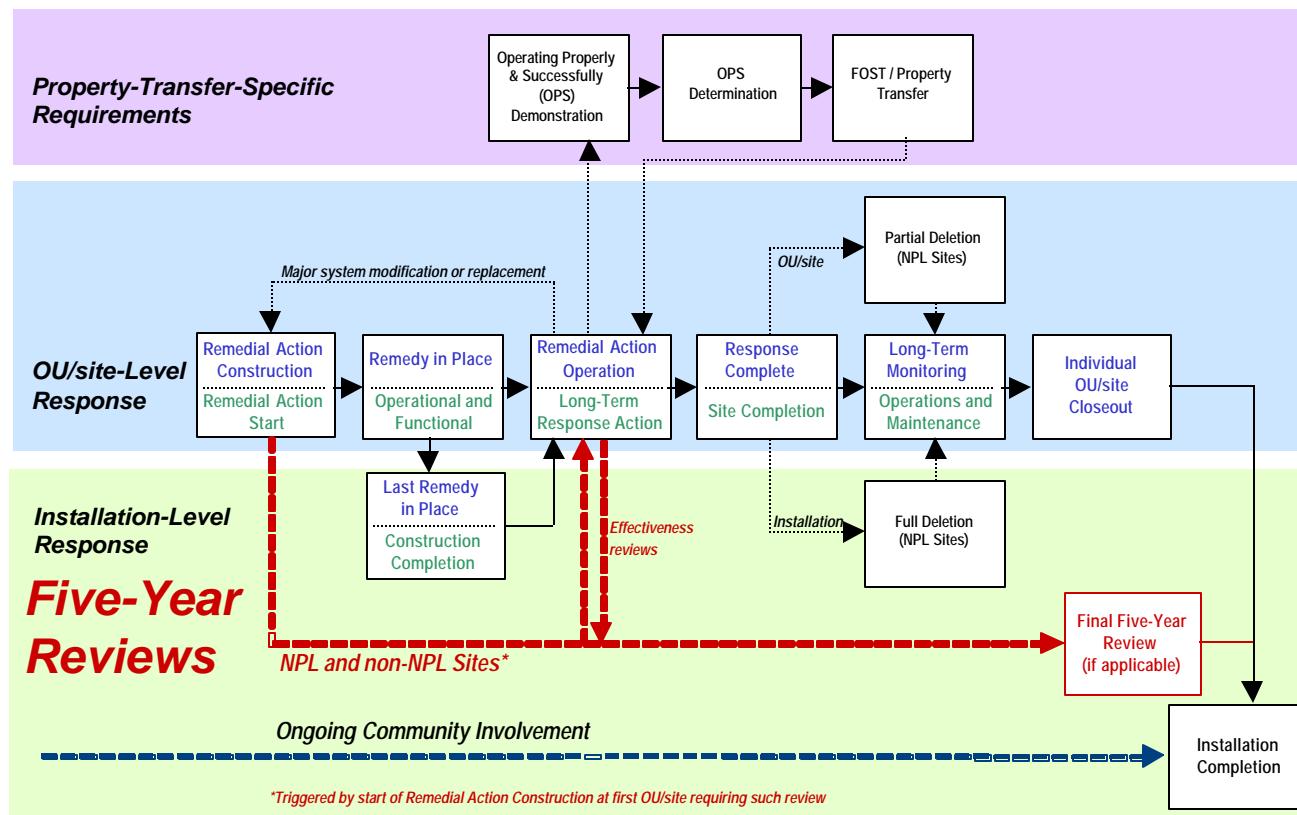


Norton AFB Central Base Area System



BRAC Cleanup Team Workshops - Site Closeout

Site Closeout: Five-Year Reviews

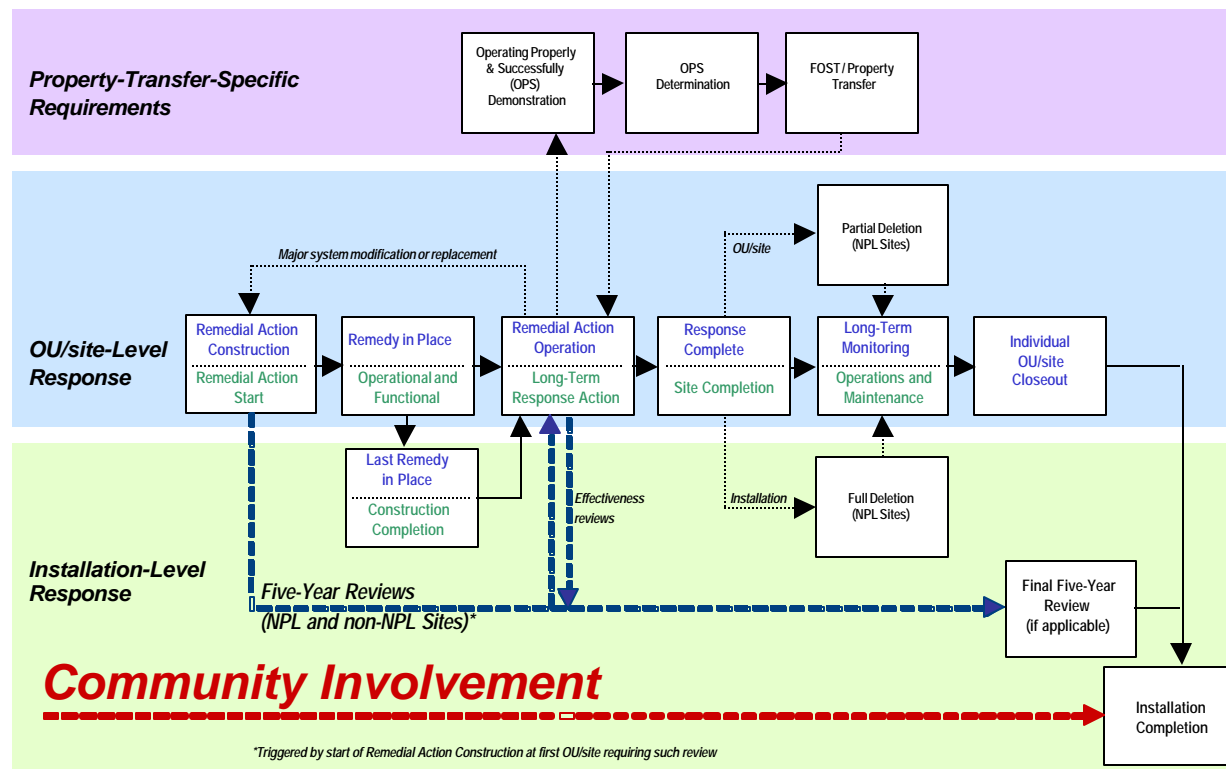


Tools:

- EPA Structure and Components of Five-Year Reviews, Aug 91
- EPA Supplemental Five-Year Review Guidance, Jul 94



Site Closeout: Community Involvement



Tools:

- Installation Community Relations Plan
- NCP Community Relations Requirements (40 CFR Part 300)
- RCRA Public Participation Manual, Jun 96



Community Involvement Activities

- **Maintain community dialogue - RABs, public meetings, fact sheets, newsletters, site tours**
- **Media relations/inquiries, press releases**
- **Cleanup progress reporting/mailing lists**
- **RAB adjournment**
- **Technical Assistance for Public Participation (TAPP)**
- **Information repository maintenance/Admin Record**
- **Public comment and document review/public notice**
 - **Remedial Action Plan, Corrective Measures Implementation Plan, Five-Year Reviews, ROD amendments, NPL deletion**



Site Closeout Resource Drivers

Numbers of . . .

- Remedial systems in place
- Performance reviews of remedy operation
- Final closeout reports for installations
- Monitoring wells used in long-term monitoring
- System modifications/upgrades
- Deletions from National Priorities List
- Institutional controls implemented
- Cleanup system/monitoring well decommissioning
- Findings of Suitability to Transfer (FOSTs)/Deeds
- Community involvement activities



Summary

- **Requirements remain beyond Last Remedy in Place/Construction Completion**
- **Multiple regulatory frameworks and site- and remedy-specific considerations are involved**
- **Site closeout requirements need to be fully understood and characterized**
- **Innovative, flexible, and streamlined approaches to expedite site closeout and manage costs need to be considered**

